

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/001693

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

1.  Claims Nos. :  
because they relate to subject matter not required to be searched by this Authority; namely:
  
2.  Claims Nos.: 1-15  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
  
Claim 1 is vague and unclear. The preamble of the claim is directed to a screening method for inhibitors of cathepsin S; whereas the claim body is directed to a screening method for compounds which bind to cathepsin S (inhibition of cathepsin S activity is not monitored). Therefore, only a cursory search was carried out.
  
3.  Claims Nos. :  
because they are dependant claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observation where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows :

- 1) Claims 1-15: A method for identifying a compound as an inhibitor of cathepsin S activity.
- 2) Claims 16-19: Dipeptides of formula I

These two groups of inventions relate to different problems and different prior art must be considered. There is no technical relationship among them involving one or more of the same or corresponding special technical features. Hence they are not so linked as to form a single general inventive concept.

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos. :
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos. : 1-15  
  
It is noted that only a cursory search was carried out (see Box No. II for details).

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/001693

**A. CLASSIFICATION OF SUBJECT MATTER**  
C07C 245/18, C12Q 1/37, C12Q 1/02, G01N 33/60, G01N 33/573, C07F 13/00

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
C12Q, G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base, and, where practicable, search terms used)  
WEST, Delphion, esp@cenet, NCBI PubMed

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CA2372968 (Claveau et al.) 16-11-2000 Abstract, Examples	1-15
Y	US5424205 (Dovey et al.) 13-06-1995 Claim 1	1
Y	US6348572 (Desmarais et al.) 19-02-2002 column 1, lines 40-60	1, 3-14
Y	WO9740066 (Massachusetts Institute of Technology) 30-10-1997 page 3, line 32; claims 20 and 27	4, 5, 13, 14

Further documents are listed in the continuation of Box C. [ ]

Patent family members are listed in annex. [x]

* "A" Special categories of cited documents : document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international-type search  
23 December 2004 (23-12-2004)

Date of mailing of the international-type search report  
31 January 2005 (31-01-2005)

Name and mailing address of the ISA/  
*Commissioner of Patents*  
*Canadian Patent Office - PCT*  
*Ottawa/Gatineau K1A 0C9*  
Facsimile No. 1-819-953-9358

Authorized officer  
Tham Pham (819) 953-0771

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.  
PCT/CA2004/001693

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
CA2372968	16-11-2000	CA2372968 A1 EP1214444 A2 JP2002543796T T US6346373 B1 WO0068414 A2	16-11-2000 19-06-2002 24-12-2002 12-02-2002 16-11-2000
US5424205	13-06-1995	US5292652 A US5424205 A WO9207068 A1	08-03-1994 13-06-1995 30-04-1992
US6348572	19-02-2002	AU3648899 A CA2269637 A1 EP0941232 A1 EP1071909 A1 JP2001506588T T US6066715 A US6267913 B1 US6348572 B1 US6608228 B1 US2002185634 A1 US2004110984 A1 WO9820024 A1 WO9821521 A1 WO9953242 A1	01-11-1999 14-05-1998 15-09-1999 31-01-2001 22-05-2001 23-05-2000 31-07-2001 19-02-2002 19-08-2003 12-12-2002 10-06-2004 14-05-1998 22-05-1998 21-10-1999
WO9740066	30-10-1997	AT255126T T AU723447 B2 AU2741897 A CA2251714 A1 DE69726426D D1 DE69726426T T2 DK912601T T3 EP0912601 A1 EP1400530 A1 ES2208898T T3 JP2000509376T T NZ332390 A PT912601T T US6608030 B1 US2003166534 A1 WO9740066 A1	15-12-2003 24-08-2000 12-11-1997 30-10-1997 08-01-2004 16-09-2004 29-03-2004 06-05-1999 24-03-2004 16-06-2004 25-07-2000 28-07-2000 30-04-2004 19-08-2003 04-09-2003 30-10-1997

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/CA2004/001685A CLASSIFICATION OF SUBJECT MATTER  
F17C 3/02, F17C 1/12, B65D 81/38, B65D 77/04

## B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC' F17C, B65D 81/38, B65D 77/04 and US Cl 62/045 1, 62/54, 220/56 05. 220/420

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base, and, where practicable, search terms used)  
Canadian Patents Database, Esp@cenet, US Patents Database using West 2 2, search terms used: (see extra sheet)

## C DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 4,918,927 ( EIGENBROD) 24 April, 1990, see the whole document	1 to 50
A	US 3,156,100 ( HAETTINGER) 10 November, 1964 , see the whole document	1 to 50
A, P	GB 2,398,115 (POOLE) 11 August, 2004, see abstract and figure no 3	1 to 50
A, P	DE 10249250 ( BAUER ) 06 May, 2004, see abstract	1 to 50
A	US 3,905,508 ( HIBL) 16 September, 1975, see abstract	1 to 50

Patent family members are listed in annex

* Special categories of cited documents	"I"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y"	document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international-type search 23 January 2005	Date of mailing of the international-type search report 23 February 2005 (23-02-2005)
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Name and mailing address of the ISA/CN Commissioner of Patents Canadian Patent Office - PCT Ottawa/Gatineau K1A 0C9 Facsimile No 1-819-953-9358	Authorized officer Ewa Chmura Nadeau (819) 997-2810
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No  
**PCT/CA2004/001685**

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US4918927	24-04-1990	None	
US3156100	10-11-1964	None	
GB2398115	11-08-2004	GB0227710D D0	08-01-2003
DE10249250	06-05-2004	None	
US3905508	16-09-1975	BE812895 A1 DE2415515 A1 FR2236140 A1 GB1437313 A IT1003863 B JP922180C C LU69725 A1 NL155935B B	15-07-1974 30-01-1975 31-01-1975 26-05-1976 10-06-1976 05-09-1978 17-07-1974 15-02-1978

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Search terms:  
vessel, vacuum, cryogenic, fuel\*, liqu\*, gas\*, heat, leak, conduct\*, metal\*, axial, radial, support,  
LNG, insulation, hub, tub\*